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EXAMINER	
BRANT, DMITRY	

ART UNIT	PAPER NUMBER
2655	

DATE MAILED: 03/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/752,528	KRISHNAMURTHY ET AL.	
	Examiner	Art Unit	
	Dmitry Brant	2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01/03/2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 9, 10 and 29, 30 are objected to because of the following informalities:

Claims 9, 10 recite the limitation "switching function". There is insufficient antecedent basis for this limitation from claim 8. However, the examiner interpreted this claim as dependent on claim 7, which contains "unique switching function events".

Appropriate correction is required.

Claims 29, 30 recite the limitation "said switching function". There is insufficient antecedent basis for this limitation from claim 28. However, the examiner interpreted these claims as dependent on claim 27, which contains "unique switching function events".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-5, 7, 9-19, 21-25, 27, 29-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bennett et al. (6,282,510) in view of Boys et al. (5,875,448) and further in view of Kwoth et al. (5,502,694)

The U.S. patents of Bennett et al., Boys et al., and Kwoth et al. teach computer-based apparatuses (systems) and hence the methods and computer code necessary to implement these systems are inevitably part of their teachings.

As per claims 1 and 21, Bennett et al. disclose recording a testimony on the tape recorder (351, FIG. 2) and at the same time, recording it in file format in a database (360, FIG. 2).

Bennett et al. do not disclose "making changes to the recording medium data based on required corresponding changes in the dictation information wherein said changes to the recording medium data are automatically reflected in the computer audio file data on a real time basis."

Boys et al. teach a system that allows the user to edit recording in audio format before it is transcribed (Col. 5, lines 31-41). Specifically, Boys et al. teach editing the digital recording on a hand-held device and then transferring the newly edited version back to the computer. (Col. 3, lines 61-63), where the new version is stored in a file format.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bennett et al. as taught in Boys et al., in order to allow the user to edit the tape recording "by ear" before having it transcribed to a text file. This would save the user valuable time in having to remove pauses, noises and other undesirable dictation portions from the transcribed file.

Bennett et al. and Boys et al. do not teach "simultaneously" reflecting the editing changes to audio recordings in corresponding computer files.

Kwoth et al. teach a method to supplement an audio recording with the instructions for the computer-based apparatus (FIG. 1)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bennett et al. and Boys et al., as taught by Kwoth et al. to create a system of alignment between the tape and the computer, where editing of the audio tape would correspondingly update computer files in real time. This would allow the user to edit the audio tape and have the corresponding audio files updated automatically on the computer side, thus saving the user time during the editing operation, since the user would not need to later download the edited version onto the computer, as taught by Boys et al.

As per claims 2 and 22, Bennet et al. disclose the use of magnetic tape recorder (elem. 351, FIG. 1)

As per claims 3 and 23, Bennet et al. disclose that records are used for transcription (Col. 4, lines 26-30)

As per claims 4 and 24, Bennett et al. disclose breaking up speech into "units" during the recording (Col. 5, lines 5-9), where each speech unit identifies a specific speech period.

Bennet et al. and Boys et al. do not teach that "a unique identifier is associated with each of said time elements."

Kwoth et al. teach splicing information into the groups and using unique codes to represent each group (Col. 1, lines 44-46).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bennett et al. and Boys et al., as taught by Kwoth et al. to assign each word or other logical segment on the tape a unique identifier. This would facilitate synchronization between the tape editing and computer file editing, since each speech unit would be uniquely identified across the system, and the computer side would be aware of words that were edited on the audio side.

As per claims 5 and 25, Bennett et al. and Boys et al. do not teach "recording medium [that] comprises at least two channels, a first channel being used for storing said recording medium data and a second channel being used for storing said unique identifier."

Kwoth et al. teach using two channels: one for audio and the other for data (elems. 106, 107, FIG. 6)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bennett et al. and Boys et al., as taught by Kwoth et al. to encode digital data along with word segments, so that the computer could read identifiers associated with audio words/segments and make the changes in the corresponding parts of the audio file.

As per claims 7 and 27, Bennett et al. disclose the use of computer terminals to further mark and annotate audio recordings during or after the proceedings. (Col. 6, lines 19-23)

Bennett et al. and Boys. do not disclose "switching function events on a device used to record in the recording medium generate a unique switching function event identifier each, said

unique switching function event identifier being different from said unique identifiers corresponding to said time elements of information."

Kwoth et al. teach using unique codes to represent information groups (Col. 1, lines 44-46).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bennett et al. and Boys as taught by Kwoth et al. to generate special codes for control events other than speech segments, such as marks and annotations introduced by the attorneys during the editing process. This would allow the computer to appropriately modify the contents of the audio files in response to the manual editing of the taped audio by an attorney.

As per claims 9 and 29, Bennett et al. and Boys do not teach that "computer is capable of interpreting the unique switching function identifiers and perform corresponding events in the computer to change the computer audio file and contents of the table stored in the computer table file appropriately."

Kwoth et al. teach that computer is capable of interpreting identifiers and in return, displaying special symbols (Col. 1, 40-45).

Bennett et al., Boys and Kwoth et al. do not teach modifying contents of audio files and tables stored on the computer.

It would have been obvious to one of ordinary skill in the art at the time the invention was made that the system and software taught by Bennett et al., Boys and Kwoth et al. would also be capable of interpreting other encoded instructions and, hence, would be able to interpret

instructions intended for file manipulation. This would allow the computer to modify audio files and reference tables in accordance with special commands encoded on the magnetic tape.

As per claims 10 and 30, Bennett et al. disclose a tape recorder (elem. 351, FIG. 2) that is capable of typical recording and editing functions (recording, stopping, rewinding, fast-forwarding and etc.) (Col. 7, 9-11)

As per claims 11 and 31, Bennett et al. and Boys do not teach that when a "record function is encountered, the first channel receives the dictated information and the second channel receives the unique identifier data."

Kwoth et al. teach recording information on a magnetic tape using two channels: one for audio and the other for identifier data (elems. 106, 107, FIG. 6)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bennett et al., Boys as taught by Kwoth et al. in order to encode digital identifiers along with word segments during the recording, so that the computer could read identifiers associated with audio words/segments and make the changes in the corresponding parts of the audio file.

As per claims 12 and 32, Bennett et al. disclose a tape recorder (elem. 351, FIG. 2) that is capable of typical recording and editing functions (recording, stopping, rewinding, fast-forwarding and etc.) (Col. 7, 9-11).

Bennett et al., Boys, Kwoth et al., and Blum do not teach when "a stop switching function event is encountered, the computer pauses inputting information into the computer file while the device pauses recording."

It would have been obvious to one of ordinary skill in the art at the time the invention was made in accordance with the extremely well-known function of a "Stop" button on various recorders that depressing a "Stop" button would temporarily stop the recording on magnetic and computer mediums, as to make sure that both computer and magnetic tape recordings remain synchronized.

As per claims 13 and 33, Bennett et al., Boys do not teach that "when the play function is encountered the first channel outputs the dictation information and the second channel outputs waveforms corresponding to the unique identifier."

Kwoth et al. teach recording information on a magnetic tape using two channels: one for audio and the other for identifier data (elems. 106, 107, FIG. 6). Necessarily, the playback of the tape would decode the information in the form it was encoded: two channels (one for audio and one for data).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bennett et al., Boys as taught by Kwoth et al. in order to decode digital identifiers along with word segments during the playback so that the computer could read identifiers associated with audio words/segments and make the changes in the corresponding parts of the audio file.

As per claims 14 and 34, Bennett et al. disclose a tape recorder (elem. 351, FIG. 2) that is capable of typical recording and editing functions (recording, stopping, rewinding, fast-forwarding and etc.) (Col. 7, 9-11).

Bennett et al., Boys, Kwoth et al. do not teach that when "rewind switching function is initiated, the computer suspends inputting dictation information into the computer audio file until further input is received from the communications port."

It would have been obvious to one of ordinary skill in the art at the time the invention was made in accordance with the extremely well-known function of a "Rewind" button on various recorders that depressing a "Rewind" button would temporarily stop the recording on magnetic and computer mediums. It is well-known in the art that rewinding and recording cannot occur at the same time on the tape recorder. Therefore, the computer side of the system would have to suspend its parallel recording operation in order to remain synchronized with the magnetic tape side of the system.

As per claims 15 and 35, Bennett et al., Boys do not teach that "when an overwrite dictate is performed, the first channel receives overwrite dictation information and the second channel receives new unique identifiers."

Kwoth et al. teach recording information on a magnetic tape using two channels: one for audio and the other for identifier data (elems. 106, 107, FIG. 6). Necessarily, overwriting of the data on the tape simply involves recording new information (audio and identifiers) over the old information using the same two channels.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bennett et al., Boys as taught by Kwoth et al. in order to encode digital identifiers along with word segments during the original recording or further overwriting (re-recording), so that the computer could read identifiers associated with audio words/segments and make the changes in the corresponding parts of the audio file.

As per claim 16 and 36, Bennett et al., Boys, Kwoth et al. do not teach that "the computer captures the new identifiers and replaces the corresponding contents of the table stored in the computer table file along with file locations corresponding to the overwritten dictation information."

It would have been obvious to one of ordinary skill in the art at the time the invention was made that the process of overwriting a dictation would involve replacing the contents of the lookup table and the contents of audio files with new data, as specified by unique identifiers. This would ensure the proper synchronization between the lookup table, the audio files stored on computer, and the magnetic tape.

As per claim 17 and 37, Bennett et al., Boys, Kwoth et al. do not teach that "the computer captures the unique identifiers and the dictation information from appropriate ports and appends the table stored in the computer table file and the computer audio file respectively."

It would have been obvious to one of ordinary skill in the art at the time the invention was made that the process of overwriting a dictation would involve replacing the contents of the

lookup table and the contents of audio files with new data, as specified by unique identifiers. This would ensure the proper synchronization between the lookup table, the audio files stored on computer, and the magnetic tape. The computer would necessarily receive the new data (identifiers, dictation information) from the communication port, as taught by Kwoth et al. (Col. 1, lines 47-50).

As per claim 18 and 38, Bennett et al., Boys, Kwoth et al. do not teach that "the computer receives unique identifiers corresponding to the dictation information on the first channel and moves pointers in the computer table file to appropriate location to match the information output from the first channel."

It would have been obvious to one of ordinary skill in the art at the time the invention was made that the process of overwriting a dictation would involve moving pointers in the lookup table to point to the new audio files, as specified by unique identifiers. This would ensure synchronization between the lookup table, the audio files stored on computer, and the magnetic tape. Because data and identifier information are received respectively on the first and second channels, the process of updating the lookup tables would necessarily involve updating the table references to the dictation data (1st channel) according to commands issued by the unique identifiers (2nd channel).

As per claims 19 and 39, Bennett et al., Boys, Kwoth et al. do not teach that when "after a dictation session is completed, a special function key is initiated corresponding to a save function

and the computer interprets this save function to perform a save operation on the recorded computer audio file to a desired digital voice file format."

It would have been obvious to one of ordinary skill in the art at the time the invention was made in accordance with the extremely well-known function of "Save" command in computer systems that "Save" command would cause computer to accept its recording as the final version and store the recording audio file in the pre-determined format. The use of "Save" command is ubiquitous throughout computer systems, particularly for word processors and other text, audio and image editors.

4. Claims 6,8, 20, 26, 28, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bennett et al. in view of Boys et al., Kwoth et al., and further in view of Blum (4,663,678)

The U.S. patents of Bennett et al., Boys et al., and Kwoth et al., and Blum teach computer-based apparatuses (systems) and hence the methods and computer code necessary to implement these systems are inevitably part of their teachings.

As per claims 6 and 26, Bennett et al., Boys. do not disclose "unique identifiers are generated by: i) generating a train of pulses; ii) feeding the pulses to a counter; iii) feeding results of the counter to an encoding logic, wherein parallel data is converted to a serial data; iv) outputting the serial data following start bits to form said unique identifier; v) amplifying and

feeding the unique identifier to the second channel; and vi) parallely feeding the serial data to a receiver-transmitter and communicating to a communications port of the computer."

Kwoth et al. teach encoding the segments and uploading that information to the computer via the communication port (Col. 1, lines 47-50). In addition, Kwoth et al. teaches encoding of the identifier information of the left channel of the tape (106, FIG. 6).

However, Bennett et al., Boys and Kwoth et al. do not teach the specific step of encoding the information of the left track of the tape.

Blum teaches a method for encoding digital information, such as identifiers, on a magnetic tape which involves generating a train of pulses (FIG. 4, FIG. 6A), feeding it counter (104, FIG. 5), using special start bits (60, FIG. 3) to identify data region (61, FIG. 3), encoding and converting the result to serial data using microprocessor (22, FIG. 2), and finally amplifying the result when it is written to the second channel (14, FIG. 1)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bennett et al. and Boys and Kwoth et al., as taught by Blum, in order to encode the data in digital form onto the special left track of the tape, so that the computer could read identifiers associated with audio words/segments and make the changes in the corresponding parts of the audio file.

As per claims 8 and 28, Bennett et al. disclose storing audio information in a database (Col. 4, lines 40-42). Inherently, such information is stored in the form of computer files.

Kwoth et al. teach sending identifier data to computer and storing the table of identifiers and corresponding text symbols on the computer (Col. 1, lines 47-49)

Bennett et al., Boys, Kwoth et al. and Blum do not teach "maintaining a table which store said unique identifier data and corresponding locations in the computer audio file in a computer table file."

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bennett et al., Boys and Kwoth et al. and Blum to store tables of identifier data and corresponding locations in order to provide a mapping between word segments on audio tape and portions of computer files. Hence, the computer could read identifiers associated with audio words/segments and make the changes in the corresponding parts of the audio file.

As per claims 20 and 40, Bennett et al., Boys and Kwoth et al. do not teach "a process comprising: detecting a transition from a 1 to 0 or a 0 to 1; creating a digital waveform based on results of said detecting; processing the digital wave form to remove start bits; feeding to a shift register driven by a same clock frequency used to generate data bits; and loading to the receiver-transmitter."

Blum discloses:

- Detecting transition from 0 to 1 and 1 to 0 (Col. 7, lines 6-12)
- Creating a waveform (FIG. 6A)
- Disregarding start bits, since only the middle section is read (Col. 7, line 56-58)
- Feeding Shift register (110, FIG. 5 and Col. 62-65)
- Loading the final result to memory (Col. 8, lines 13-16)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bennett et al., Boys and Kwoth et al. as taught by Blum to allow reading of

identifiers encoded on tape by the tape recorder, so that identifiers could be read from the tape and computer could correlate information encoded on tape with the appropriate portions of the audio files, altering the content of the audio files when prompted by the signals from audio tape.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bennet et al. (5,369,704) teaches transcription system for courtrooms

Kasubuchi et al. (4, 377, 825) teach a method for storing/reading digital information on audio tape

Rines et al. (6,002,558) teach simultaneous recording on audio tape and transmitting digital information to an off-site base

Gangwere Jr. et al. (4, 968, 254) teach synchronizing output signals from audio tape and computer

Case (5,737, 725) teach a method of generating altered voice files in response to changes to associated text

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Brant whose telephone number is (703) 305-8954. The examiner can normally be reached on Mon. - Fri. (8:30am - 5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talivaldis Ivars Smits can be reached on (703) 306-3011. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Tech Center 2600 receptionist whose telephone number is (703) 305- 4700.

DB
2/25/04

TALIVALDIS IVARS SMITS
PRIMARY EXAMINER